

Mineral Industry Surveys

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COBALT IN JUNE 2002

U.S. consumption of cobalt during January through June 2002 was 3% higher than that during the first 6 months of 2001, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was slightly higher during January through May 2002 than that of imports during the same period in 2001. The cobalt content of U.S. exports of unwrought cobalt and chemicals was 45% lower during January through May 2002 than that during the same period in 2001. Trade data for June 2002 will be available in a subsequent issue.

Note

With the exception of prices, all data in this report have been rounded to no more than three significant digits. Totals and percentages were calculated by using unrounded data.

Price

Prices for electrolytic cobalt, in dollars per pound, from Platts Metals Week are listed below.

<u>Date</u>	<u>Price range</u>
July 18	6.50-6.75
July 25	6.50-6.75
August 1	6.40-6.65
August 8	6.50-6.65
August 15	6.30-6.50

<u>Month</u>	<u>Average price</u>
July	6.76

TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS 1/

(Metric tons, contained cobalt)

Period	Metal 2/	Oxide and other chemical compounds 3/	Scrap	Total
2001:				
June	281	147	209	638
July	303	117	209	629
August	283	110	209	602
September	279	137	209	626
October	302	104	209	615
November	312	105	209	627
December	309	112	209	631
January-June	1,810 r/	818 r/	1,260	3,890 r/
January-December 4/	3,600	1,500	2,520	7,620
2002:				
January	362 r/	98 r/	215	674 r/
February	349 r/	99 r/	215	663 r/
March	358 r/	105 r/	215	678 r/
April	345 r/	112 r/	215	672 r/
May	353 r/	101	215	669 r/
June	305	114	215	633
January-June	2,070	629	1,290	3,990

r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes metal powder.

3/ Data may include other cobalt materials.

4/ Data based on monthly reports.

TABLE 2
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE 1/

(Metric tons, contained cobalt)

End use	2001		2002	
	January- June	January- December 2/	June	January- June 3/
Steel	116 r/	207	48	285
Superalloys	1,780 r/	3,620	302	2,050
Magnetic alloys	364	683	34	211
Other alloys 4/	W	W	W	W
Cemented carbides 5/	399	798	61	365
Chemical and ceramic uses 6/	1,070 r/	2,020	162	922
Miscellaneous and unspecified	152	297	25	151
Total	3,890 r/	7,620	633	3,990

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Data based on monthly reports.

3/ May include revisions to prior months.

4/ Includes nonferrous alloys, welding materials, and wear-resistant alloys.

5/ Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

6/ Includes catalysts, driers in paints or related usage, feed or nutritive additive, glass decolorizer, ground coat frit, pigments, and other uses.

TABLE 3
U.S. REPORTED STOCKS OF COBALT MATERIALS 1/

(Metric tons, contained cobalt)

Period	Industry 2/ Oxide and other chemical compounds 4/			Total	U.S. Government, metal 5/
	Metal 3/		Scrap		
2001:					
June	300	196	163	659	8,480
July	298	219	163	680	8,420
August	319	236	163	718	8,260
September	313	238	163	713	8,180
October	339	230	162	732	NA
November	325	223	163	711	NA
December 6/	335	212	163	710	7,200 e/
2002:					
January	415 r/	251 r/	134 r/	800 r/	NA
February	406 r/	247 r/	134 r/	787 r/	NA
March	379 r/	257 r/	135 r/	771 r/	NA
April	367 r/	247 r/	134 r/	749 r/	NA
May	359 r/	240 r/	134 r/	733 r/	NA
June	353	231	134	719	NA

e/ Estimated. r/ Revised. NA Not available.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Stocks reported by cobalt processors and consumers.

3/ Includes metal powder.

4/ Data may include other cobalt materials.

5/ Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

6/ Data based on monthly reports.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY 1/

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Metals 2/		Oxides and hydroxides		Salts and compounds 3/		Total cobalt content for the month 5/	Cobalt content, year to date 5/ 6/
	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/		
2001:								
May	836,000 7/	\$21,100,000 7/	50,600	\$1,210,000	80,400	\$518,000	896,000	4,030,000
June	687,000	16,300,000	152,000	2,820,000	84,700	486,000	820,000	4,850,000
July	525,000	12,500,000	119,000	2,090,000	184,000	966,000	658,000	5,500,000
August	646,000	14,300,000	106,000	1,910,000	174,000	872,000	768,000	6,270,000
September	569,000	12,300,000	64,600	1,310,000	198,000	973,000	668,000	6,940,000
October	826,000	16,400,000	91,900	1,760,000	332,000	1,690,000	982,000	7,920,000
November	603,000 7/	10,500,000 7/	81,000	1,330,000	142,000	654,000	700,000	8,620,000
December	553,000	9,200,000	91,900	1,340,000	254,000	1,080,000	689,000	9,310,000
January-December	7,810,000	180,000,000	1,280,000	25,700,000	2,140,000	10,900,000	9,310,000	XX
2002:								
January	729,000 7/	11,500,000 7/	101,000	1,550,000	267,000	1,220,000	877,000	877,000
February	564,000	9,020,000	148,000	2,300,000	202,000	727,000	725,000	1,600,000
March	679,000	11,000,000	162,000	2,690,000	216,000	849,000	854,000	2,460,000
April	660,000	10,700,000	79,000	1,230,000	268,000	1,080,000	790,000	3,250,000
May:								
Australia	20,000	284,000	--	--	--	--	20,000	40,000
Belgium	70,400	1,570,000	77,500	1,230,000	500	2,750	126,000	424,000
Brazil	40,000	595,000	--	--	--	--	40,000	180,000
Canada	76,200	1,370,000	--	--	--	--	76,200	379,000
China	--	--	--	--	--	--	--	39,000
Congo (Kinshasa)	54,300	765,000	--	--	--	--	54,300	184,000
Finland	45,600	695,000	60,800	656,000	152,000	615,000	133,000	885,000
France	4,260	202,000	2,690	97,300	--	--	6,190	22,300
Germany	310	8,650	--	--	6	2,240	312	7,880
Japan	5,000 7/	29,200 7/	--	--	8,110	90,400	7,030	13,200
Korea, Republic of	51	3,110	--	--	--	--	51	336
Morocco	--	--	--	--	--	--	--	36,000
Norway	134,000	2,200,000	--	--	--	--	134,000	879,000
Philippines	--	--	--	--	2,720	22,200	1,250	12,100
Russia	203,000	3,550,000	--	--	--	--	203,000	664,000
South Africa	--	--	--	--	--	--	--	86,100
Sweden	1,660	34,900	--	--	--	--	1,660	8,700
Switzerland	--	--	--	--	--	--	--	3
Uganda	--	--	--	--	--	--	--	13,000
United Kingdom	10,600 7/	60,000 7/	14,300	325,000	13,000	68,300	24,000	85,300
Zambia	58,000	831,000	--	--	--	--	58,000	171,000
Total	723,000	12,200,000	155,000	2,310,000	176,000	801,000	885,000	4,130,000

XX Not applicable. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder.

3/ Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

4/ Customs value.

5/ Estimated from gross weights.

6/ May include revisions to prior months.

7/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY 1/

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Unwrought cobalt alloys		Other cobalt: matte, waste and scrap 2/		Wrought cobalt and cobalt articles	
	Quantity	Value 3/	Quantity	Value 3/	Quantity	Value 3/
2001:						
May	8,030	\$193,000	22,600 4/	\$823,000 4/	25,100	\$813,000
June	22,200	445,000	67,400 4/	888,000 4/	14,600	980,000
July	6,570	147,000	57,400 4/	537,000 4/	14,500	989,000
August	3,480	64,600	46,400 4/	1,060,000 4/	13,200	845,000
September	1,140	51,500	18,500 4/	515,000 4/	15,400	947,000
October	3,410	105,000	32,000 4/	709,000 4/	19,400	1,170,000
November	10,800	250,000	22,400 4/	519,000 4/	17,000	1,030,000
December	2,130	47,500	49,200 4/	1,010,000 4/	21,800	1,370,000
January-December	73,200	1,670,000	631,000	11,500,000	233,000	13,400,000
2002:						
January	6,990	152,000	73,900 4/	1,170,000 4/	23,000	925,000
February	3,650	154,000	15,800	379,000	15,300	932,000
March	1,420	187,000	88,200	1,270,000	20,900	1,080,000
April	210	6,350	30,500	546,000	33,500	1,320,000
May:						
Australia	--	--	--	--	15,000	132,000
Austria	--	--	785	9,580	--	--
Belgium	--	--	--	--	450	20,500
Canada	--	--	2,620	143,000	2,010	292,000
China	1,000	24,600	70	2,260	20	2,880
Finland	--	--	6,430	163,000	--	--
Germany	--	--	6,030	33,000	382	20,700
Ireland	--	--	4,360	47,000	250	7,030
Japan	400	28,200	100	7,440	1,770	45,000
Malaysia	67	14,500	--	--	--	--
Switzerland	--	--	551	9,240	--	--
United Kingdom	2,140	76,600	58	2,740	9,140	456,000
Total	3,600	144,000	21,000	417,000	29,000	977,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes other intermediate products of cobalt metallurgy; may include other cobalt-bearing materials from which cobalt is extracted, or from which cobalt-containing chemical compounds are manufactured.

3/ Customs value.

4/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 6
U.S. EXPORTS OF COBALT MATERIALS 1/

(Kilograms, gross weight of material, except as noted)

Period	Unwrought cobalt, powders, matte, waste and scrap 2/		Oxides and hydroxides		Salts and compounds 3/		Total cobalt content for the month 5/	Cobalt content, year to date 5/ 6/
	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/		
2001:								
May	220,000	\$5,590,000	84,200	\$654,000	26,100	\$209,000	287,000	1,430,000
June	204,000	5,460,000	116,000 7/	1,070,000 7/	39,000	334,000	297,000	1,730,000
July	146,000	3,960,000	211,000 7/	1,160,000 7/	30,000	231,000	306,000	2,040,000
August	189,000	5,270,000	27,400 7/	241,000 7/	29,800	173,000	216,000	2,250,000
September	186,000	4,730,000	32,100	473,000	3,030	27,100	210,000	2,460,000
October	184,000	5,100,000	6,530	155,000	35,400	221,000	197,000	2,660,000
November	306,000	4,520,000	41,600	581,000	7,770	34,300	338,000	3,000,000
December	182,000	3,220,000	32,500	701,000	9,110	77,100	207,000	3,210,000
January-December	2,230,000	57,300,000	1,260,000	10,200,000	254,000	1,980,000	3,210,000	XX
2002:								
January	127,000	2,870,000	25,600	379,000	14,100	98,500	149,000	149,000
February	140,000	2,850,000	6,090	88,100	13,400	85,300	148,000	297,000
March	167,000	3,370,000	5,820	71,700	12,200	67,700	174,000	471,000
April	161,000	3,690,000	35,500	483,000	19,000	97,200	191,000	662,000
May	77,700	1,800,000	57,600	656,000	36,300	185,000	128,000	790,000

XX Not applicable.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ May include other intermediate products of cobalt metallurgy, and unwrought cobalt alloys.

3/ Cobalt acetates and cobalt chlorides.

4/ Free alongside ship (f.a.s.) value.

5/ Estimated from gross weights.

6/ Year to date may include revisions to prior months.

7/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 7
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE, AND CONCENTRATES 1/

(Kilograms, gross weight of material, except as noted)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value 2/	Quantity	Value 2/
2001:				
May	44,100	\$2,250,000	23,200 3/	\$54,900 3/
June	31,300	2,200,000	95,800 3/	63,100 3/
July	73,800	2,040,000	78,300 3/	342,000 3/
August	66,400	2,320,000	21,400 3/	321,000 3/
September	50,700	1,990,000	71,500 3/	446,000 3/
October	30,600	1,250,000	19,400 3/	411,000 3/
November	42,600	1,960,000	2,400 3/	58,700 3/
December	82,300	2,710,000	2,330 3/	72,000 3/
January-December	741,000	25,500,000	527,000	3,090,000
2002:				
January	46,000	1,720,000	237,000 3/	776,000 3/
February	136,000	3,070,000	2,900 3/	85,000 3/
March	55,300	1,710,000	575 3/	16,500 3/
April	106,000	2,450,000	--	--
May	74,500	2,100,000	2,910 3/	49,200 3/

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Free alongside ship (f.a.s.) value.

3/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.